UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/014,106	12/11/2001	Kyle G. Brown	RSW920010188US1	2639

7590 01/29/2007		EXAMINER
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ART UNIT	PAPER NUMBER
2145	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/29/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

PTOL-90A (Rev. 10/06)

	Application No.	Applicant(s)
Office Action Summary	10/014,106	BROWN ET AL.
	Examiner	Art Unit	
	Jeffrey R. Swearingen	2145	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _27 October 2006_.
2a) ☐ This action is **FINAL.**   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-48_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) _1-48_ is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR

1.17(e), was filed in this application after final rejection. Since this application is eligible for continued

examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the

finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's

submission filed on 8/31/2006 has been entered.

Response to Arguments

2.   Applicant's arguments with respect to claims 1-48 have been considered but are moot in view of

the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

3.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

4.   Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to

particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5.   It is unclear what Applicant means by *said computer executable instructions for transmitting*

messages executable instructions.

6.   There is insufficient antecedent basis in claims 4 and 7 for *said computer readable code.*

Claim Rejections - 35 USC § 102

7.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for

the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by
> another filed in the United States before the invention by the applicant for patent or (2) a patent
> granted on an application for patent by another filed in the United States before the invention by the
> applicant for patent, except that an international application filed under the treaty defined in section
> 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8.   Claims 1-4, 7, 11-28, 31, and 35-48 are rejected under 35 U.S.C. 102(e) as being anticipated by

Barnett et al. (US 200/20111814 A1).

9.   In regard to claims 1 and 25, Barnett disclosed:

determining and describing Web services software modules that are available at a

corresponding network node, said Web services software modules comprising executable

software modules that can be exchanged between nodes of a network and run at said nodes;

paragraph [0038]

generating messages to be transmitted to other containers via a network disclosing said

Web services software modules that are available at said corresponding network node;

paragraph [0036]

receiving and deciphering messages disclosing Web services software modules that are

available at other network nodes corresponding to other containers; paragraph [0038] and

causing the dynamic reconfiguration of said Web services software modules available at

said corresponding network node on said network based on said transmitted and received

messages, including the exchange of said Web services software modules between said network

nodes; paragraph [0035]

wherein said container is in the form of a Web services software module. Paragraph

[0037]

10.   In regard to claims 2 and 26, Barnett disclosed:

transmitting messages to other containers requesting said other containers to return

copies of Web services software modules; paragraph [0049] and

responsive to receipt of messages from said other containers requesting copies of Web

services software modules available at said corresponding network node, for sending copies of

said requested Web services software modules to said requesting containers. Paragraph [0049]

11.   In regard to claims 3 and 27, Barnett disclosed:

>   *generating messages that are hardware and software platform independent.* Paragraph
>
>   *[0007]*

12.   In regard to claims 4 and 28, Barnett disclosed:

>   *transmitting said messages to and from a Web services registry; and*
>
>   *receiving said messages from a Web services registry.* Paragraph [0038]

13.   In regard to claims 7 and 31, Barnett disclosed:

>   *transmitting messages executable instructions uses a peer to peer messaging protocol*
>
>   *between said containers and said computer readable code for receiving and deciphering*
>
>   *messages uses a peer to peer messaging protocol between containers.*

14.   In regard to claims 11 and 35, Barnett disclosed:

>   *receiving client requests for use of a Web services software module from client*
>
>   *computers via said network.* Paragraph [0035]

15.   In regard to claims 12 and 36, Barnett disclosed:

>   *responsive to receipt of one of said client requests from a client for a Web services*
>
>   *software module that is not available at said corresponding network node;* paragraph [0038]
>
>   *determines, based on said received messages disclosing said Web services*
>
>   *software modules that are available at other network nodes, whether another network*
>
>   *node has a copy of said particular Web services software module;* paragraph [0035] *and*

invokes a proxy to another of said containers having a copy of a particular Web

services software module based on said determination. Paragraph [0035]

16.   In regard to claims 13 and 37, Barnett disclosed:

routing said client requests for a Web services software module that is not available at

said corresponding network node and has been determined to be available at another network

node to another container corresponding to said another network node; paragraph [0035]

receiving responses to said client requests from said another network node; paragraph

[0035] *and*

returning said responses to said requesting clients. Paragraph [0035]

17.   In regard to claims 14 and 38, Barnett disclosed:

receiving said client requests routed from another of said containers and causing said

client requests to be handled by a copy of said particular Web services software module at a

network node corresponding to said container to generate said response; paragraph [0049] *and*

transmitting said response to said another container that routed said client request to said

container. Paragraph [0049]

18.   In regard to claims 15 and 39, Barnett disclosed:

determining a load of client requests at said corresponding network node; paragraph

[0038] *and*

the dynamic reconfiguration of Web services software modules performs said dynamic

reconfiguration based on said load determination. Paragraph [0038]

19.   In regard to claims 16 and 40, Barnett disclosed:

responsive to determination of a load of client requests for a particular Web services

software module that is not available at said corresponding network node exceeding a

predetermined level, issues a message requesting a copy of said particular Web services

software module from another container that has a copy of said particular Web services software

module; paragraph [0039]

   receiving and locally invoking said particular Web services software module from said

other container; paragraph [0039] *and*

   routing client requests for said particular Web services software module to said local

invocation of said particular Web services software modules. Paragraph [0039]

20.   In regard to claims 17 and 41, Barnett disclosed:

   offloading said particular Web services software module received from said other

container responsive to said load of client requests for said particular Web services software

module dropping below a second predetermined level. Paragraph [0039]

21.   In regard to claims 18 and 42, Barnett disclosed:

   responsive to determination of a load of client requests for a particular Web services

software module available at said corresponding network node exceeding a predetermined level,

issues a message requesting another container to accept a copy of the code of said particular

Web software modules; paragraph [0039] *and*

   sending a copy of said code of said particular Web services software module to said

other container responsive to affirmative responses to said message requesting another

container to accept a copy of the code of said particular Web services software module.

Paragraph [0039]

22.   In regard to claims 19 and 43, Barnett disclosed:

   reconfiguring said computer program product to route client requests for said particular

Web services software module to said other container. Paragraph [0037]

23.   In regard to claims 20 and 44, Barnett disclosed:

        said other container comprises a plurality of other containers. Paragraph [0038]

24.   In regard to claims 21 and 45, Barnett disclosed:

        reconfiguring said computer program product to route client requests for said particular

Web services software module to said other container distributes said client requests for said

particular Web services software module between said other containers and said local invocation

of said particular Web services software module. Paragraphs [0037]-[0040]

25.   In regard to claims 22 and 46, Barnett disclosed:

        wherein said client requests indicate whether said requesting client has a container and a

platform on which said client is running and wherein said computer program product further

comprises computer executable instructions to read said client requests to determine whether

said client has a container and said platform. Paragraph [0037]

26.   In regard to claims 23 and 47, Barnett disclosed:

        sending a copy of the code of a particular Web services software module responsive to a

client request for said Web services software module. Paragraph [0049]

27.   In regard to claims 24 and 48, Barnett disclosed:

        monitoring usage of Web services software modules by clients; and

        charging said clients for said usage. Paragraph [0046]

Claim Rejections - 35 USC § 103

28.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

29.   This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

30.   Claims 5-6, 8-9, 29-30 and 32-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barnett in view of Sycara ("Multi-Agent Infrastructure, Agent Discovery, Middle Agents for Web Services and Interoperation," Multi-Agent Systems and Applications: 9th ECCAI Advanced course ACAI 2001 and Agent Link's 3rd European Agent Systems Summer School, EASSS 2001, Prague, Czech Republic, July 2-13, 2001, Selected Tutorial Pages. pp. 17-49. Springer Berlin.)

31.   In regard to claims 5-6, 8-9, 29-30, and 32-33, Barnett disclosed a dynamic web services exchange infrastructure. Barnett failed to disclose the use of UDDI, SOAP, or WSDL as protocols for use with Web Services. Barnett disclosed that other software could be used other than Jini in paragraph [0048]. Sycara disclosed that UDDI, SOAP and WSDL were receiving "increased visibility" in the field of Web services as protocols. See Sycara, page 18. Because Barnett disclosed other protocols could be used in the design of Barnett, and Sycara disclosed other protocols that were being used in distribution of Web services, it would have been obvious to one of ordinary skill in the art at the time of the invention to use UDDI, SOAP, and WSDL with Barnett's invention.

32.   Claims 10 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barnett in view of Project JXTA (Collab.Net, Inc., May 15, 2001, http://web.archive.org/web/20010515211442/http://www.jxta.org).

33.   In regard to claims 10 and 34, Barnett disclosed a dynamic web services exchange system using Jini, which is a cross-platform protocol. Barnett disclosed other protocols than Jini could be used in paragraph [0048]. Barnett failed to disclose the use of JXTA as a protocol for transmitting messages between platforms. However, Project JXTA showed that on April 25, 2001, Project JXTA went live as an open sources effort to create an open, generalized protocol that interoperates with any peer on the network including PCs, servers, and other connected devices. Because Barnett described the use of a cross-platform protocol, Barnett gave suggestion that other protocols could be used, and because Project JXTA was expressly designed as a cross-platform protocol for transmitting messages between peers as described in "What is Project JXTA?", and because Project JXTA is open source, therefore allowing more developers to make use of the protocol, it would have been obvious to one of the ordinary skill in the art at the time of the invention to use the JXTA protocol with the Barnett invention.

Conclusion

34.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hellbusch et al.	US 6,647,420 B2
Simpson et al.	US 7,085,807 B2
Stawikowski	US 7,159,007 B2
Karp et al.	US 7,165,113 B2

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey R. Swearingen whose telephone number is (571) 272-3921. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Cardone can be reached on 571-272-3933. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application

Information Retrieval (PAIR) system. Status information for published applications may be obtained from

either Private PAIR or Public PAIR. Status information for unpublished applications is available through

Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

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or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-

1000.

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Art Unit 2145